
Leveraging New Tax Incentives for Public Projects

Pit Stop: Timely Procurement Topics

Session 4B

August 8, 2006



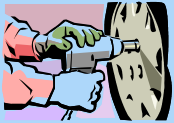
Leveraging New Tax Incentives for Public Projects

Agency Perspective

ug Dahle
Program



Federal Renewable Energy (RE) Drivers

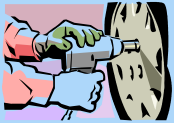


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- EPACT 05/2003 – Mandated goal to increase federal purchase of renewable electricity
 - 3% by 2009
 - 5% by 2012
 - 7.5% by 2015
 - DoD - 25% DoD by 2025 (proposed)
 - Double credit for RE on-site or on Federal lands used at Federal site
- FEMP Renewables Goal Guidance Roll-out in Session 9A



Federal RE Projects with Tax Incentives

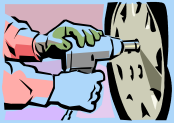


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- ESPC and other private financing mechanisms to acquire RE projects are keys to meet EPACT 05 RE goals
- New EPACT 05 RE Tax Incentives
 - Increases Solar Tax credit from 10% to 30%
 - Solar Electric and Solar Thermal (not solar heating for swimming pools)
 - Restores Production Tax Credit
 - Wind – 1.9 cents/kWh
 - Open-Loop Biomass - .85cents/kWh
- Some states offer Solar Tax Credits



Key Principles for Leveraging Tax Incentives in ESPCs

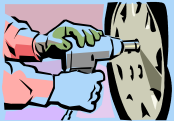


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- RE system ownership by private sector party
- Private party tax appetite
 - 3rd party financier
- DOE Golden supports title transfer upon acceptance to ESCO or financier
- RE System operational by 12/31/07
 - Congressional action to extend 8 yrs
- Some form of power sales agreement from asset owner to federal facility (at least for PTCs)
- Address ownership and value of RECs
- Ownership disposition at end of contract term variable



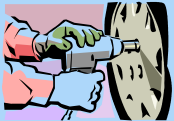
Gross Valuation of Tax Incentives for PV Project



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- Ex: 500kW PV system
 - Assume \$10,000/kW installed cost
 - Cost Basis: \$5M
 - No State RE financial incentive
 - HI State Solar Tax Credit (STC) – 35%
 - With \$250,000 cap
- Apply
 - 1-Federal 30% Solar Tax Credit (STC)
 - 2-Accelerated Depreciation
 - 3-HI Solar Tax Credit
- 1. Fed STC - $\$5\text{M} \times .3 = \1.5M

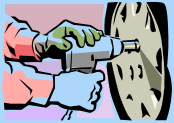
Gross Valuation of Tax Incentives for PV Project



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- 2. Accelerated Depreciation
 - Assumptions:
 - Corporate Tax Rate (CTR) = 30%
 - Discount Rate(DR) = 12%
 - Cost Basis(CB) = \$5M –
(.3x.5) = \$4.25M
 - Annual Depreciation Rates (ADR) per
MACRS
 - Year 1-20%, 2-32%, 3-19.2%, 4-11.52%,
5-11.52%, 6-5.76%
 - Annual Depreciation = $CB \times ADR \times CTR$

Gross Valuation of Tax Incentives for PV Project

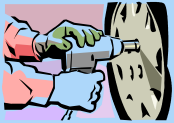


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- 2. Accelerated Depreciation
 - 1- $\$4.25\text{M} \times .2 \times .3 = \225.0K
 - 2- $\$4.25\text{M} \times .32 \times .3 = \408.0K
 - 3- $\$4.25\text{M} \times .192 \times .3 = \244.8K
 - 4- $\$4.25\text{M} \times .1152 \times .3 = \143.4K
 - 5- $\$4.25\text{M} \times .1152 \times .3 = \143.4K
 - 6- $\$4.25\text{M} \times .0576 \times .3 = \73.4K
 - Total = $\$1.218\text{M}$
 - @12% DR, NPV = $\$910,081$



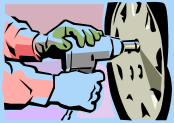
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- 3. HI State Tax Credit
 - 35% with Cap of \$250,000
 - State tax credit taxed at 30%
 - $\$5\text{M} \times .35 = \1.75M
 - Allowable \$250K
 - Net State Tax Credit
 - $\$.25\text{M} \times (1 - .3) = \$.175\text{M}$

Gross Valuation of Tax Incentives for PV Project



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■ Gross Tax Benefits

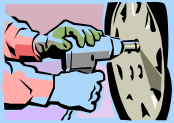
- Fed STC = \$1.500M
- Accel Depr (NPV) = \$.910M
- HI STC = \$.175M
\$2.585M
(52% of PV cost)

■ No State RE financial incentives

- If applicable, RE incentive would reduce cost basis for tax incentives
 - No cost basis adjustment if private party accepts as taxable income



Leveraging Tax Incentives has its Costs

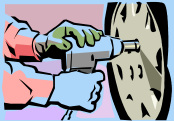


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- Asset Owner can claim tax benefits for public project at a cost
 - Title Transfer
 - LLC/Special Purpose Entity
 - Sales/property/use taxes
 - Accounting/legal fees
 - PV O&M Costs
 - Other
- Result – Net tax benefits can be applied to reduce ESPC financing costs or debt service



Gross Valuation of Tax Incentives for Wind Project



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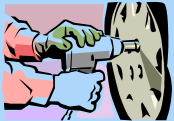
- Production Tax Credit – 1.9cents/kWh

SAMPLE OF WIND TURBINE PRODUCTION FOR CLASS 3 RESOURCE

Project Size (kW)	Output (kwh/yr)	Estimated Value of PTC (\$/year)	Cost (\$/kW)	System Cost (\$)
10	60,188	1,144	6,750	67,500
20	120,376	2,287	6,750	135,000
25	249,622	4,743	5,800	145,000
100	930,464	17,679	4,000	400,000
600	2,125,476	40,384	2,500	1,500,000
1,000	9,082,371	172,565	2,300	2,300,000
4,950	44,651,160	848,372	2,300	11,385,000
5,000	45,411,855	862,825	2,300	11,500,000



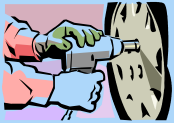
Gross Valuation of Tax Incentives for Wind Project



Pit Stop:
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- Ex: 1000 KW Wind Turbine
 - No State Wind Incentive
- 1. PTC
 - From Table: PTC = \$172,565/year
 - PTC total over 10yrs = \$1,725,650
 - Using 12% corporate discount rate
 - NPV PTC total = \$1,068,932

Gross Valuation of Tax Incentives for PV Project

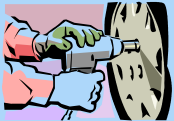


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- 2. Accelerated Depreciation
 - 1- $\$2.3\text{M} \times .2 \times .3 = \138K
 - 2- $\$2.3\text{M} \times .32 \times .3 = \221K
 - 3- $\$2.3\text{M} \times .192 \times .3 = \133K
 - 4- $\$2.3\text{M} \times .1152 \times .3 = \79K
 - 5- $\$2.3\text{M} \times .1152 \times .3 = \79K
 - 6- $\$2.3\text{M} \times .0576 \times .3 = \40K
 - Total = \$.690M
 - @12% DR, NPV = \$.509M



Gross Valuation of Tax Incentives for Wind Project



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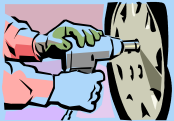
■ Gross Tax Benefits

- PTC = \$1.069M
- Accel Depr (NPV) = $\frac{\$.509M}{\$1.578M}$

(69% of Wind Turbine cost)

■ No State RE financial incentives

- If applicable, RE incentive would reduce cost basis for Accelerated Depreciation
 - No cost basis adjustment if private party accepts as taxable income



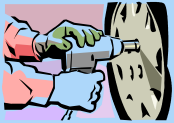
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- Tax Incentives have significant impact
- Tax benefits can only be applied by private sector asset owner upon operational status
- Leveraging tax benefits for Federal ESPC reduce project financing costs
- ESCOs and Financiers willing to partner to achieve RE tax benefits



DOE FEMP Assistance

Where to from here



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- Acquiring tax attorney expertise for Agency guidance product, posted on FEMP web site – Sep/Oct 06
- Support agencies in projects and develop lessons learned
- Update Agency guidance with best practices for successful contract structures and terms